



PATENT
Customer No. 22,852
Attorney Docket No. 1165-854

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of:)

Jinichiro Kato et al.)

Application No.: **10/066,712**)

Filed: February 6, 2002)

For: Poly(trimethylene terephthalate) and a)
Process for Producing the Same)

) Group Art Unit: 1711

) Examiner: Samuel A. Acquah

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

RULE 132 DECLARATION

I, DR. JINICHIRO KATO, do hereby declare that I am one of the inventors of the above-identified application and that I am a citizen of Japan, residing at 34 Sakurasono-cho, Nobeoka-shi, Japan. That in March, 1985, I graduated from Oaka University, Graduate School of Engineering, majoring in co-enzyme chemistry, and received a Doctorate of Engineering at Osaka University. That since April, 1985, I have been an employee of Asahi Kasei Kabushiki Kaisha. While employed by Asahi Kasei, I have been engaged in research work on the synthesis of various synthetic resins, and development of polyester fiber, most recently, poly(trimethylene terephthalate) fiber.

The experiment described below was performed by me or under my direct supervision and control.

I am familiar with the history of prosecution of this application and the Examiner's opinion that the claims are unpatentable under 35 U.S.C. §102(b) for being anticipated by U.S. Patent No. 5,798,433 to Schmidt et al. (hereafter Schmidt).

The purpose of the following experiment is to determine X and L* values of a poly(trimethylene terephthalate) produced in Comparative Example 2 of Schmidt where "X" is the ratio of terminal -OH groups to the total of terminal end groups of the polymer.

1. Experiment

(a) The composition of the charge is shown in the following table:

PDO wt. ratio to (TPA+PDO)	Esterification catalyst		Coloring modifier	H ₃ PO ₄	Polycondensation catalyst	
	Kind	ppm (Ti)	ppm (Co)	ppm (P)	Kind	ppm (Ti)
0.641	TiO ₂ * ¹	150	-	-	TiO ₂ * ¹	120

*1: Available from Sachtleben Chemie Company.

(b) Conditions of reaction.

Reaction temperatures and polycondensation time are shown in the table below:

Esterification Temp.	Polycondensation Temp.	Period of polycondensation* ¹
240°C	264°C	140 min

*1: Time at which agitating torque leveled off.

Additions of the esterification catalyst, polycondensation catalyst, cobalt acetate, and phosphorous acid were conducted in accordance with the description at column 4, lines 5 to 14 of Schmidt. Regarding conditions not described in Schmidt, the reaction vessel and agitator blade and agitation conditions used were according to Comparative Example 1 of the present application. See page 23.

2. Results of the experiment

	$[\eta]^*1$	L* value	b* value	[-OH]	[-COOH]	[Allyl group]	X value
Resultant Polymer	0.791	84	4.7	36	27	42	34
Comparative Example 2 (described)	0.802	-	3.2	-	23	-	-

*1: Intrinsic viscosity of the polymer was sampled when agitation torque leveled off (= the maximum possible viscosity).

The intrinsic viscosity and respective terminal end group contents (X value) were determined by the methods described on page 22, lines 10 to 33 of the present application. The L* value and b* value were determined according to JIS Z8729.

3. Conclusions

As shown in the Table above, the resultant polymer produced according to the teachings of Example 2 of Schmidt has a X value of 34, which is outside of the value now set forth in the claims, and an L* value of 84.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: _____

By: _____
JINICHIRO KATO